What is claimed is :

1. A picture display of a rear surface projection type, comprising:

a projector for shooting out a light flux modulated by a picture,

a transparent screen, on a rear surface of which said light flux shot out from said projector is projected, and

a sawlike prismatic surface which is formed on said rear surface of said transparent screen, and provided with plural edges shaped into concentric circles centering around a central point situated outside said transparent screen,

wherein an optical axis of said projector passes through said central point, and

a ray of light incident on a first face looking downward and neighboring with each of said plural edges is efficiently transmitted into said transparent screen, and said ray of light transmitted through said first face is totally reflected by a second face looking upward and neighboring with said same edge to a front surface of said transparent screen, in case that a angle formed by said ray of light incident on said first face and said optical axis of said projector is greater than 40° and less than 90° .

2. A picture display of a rear surface projection type according to claim 1, wherein:

an angle α_2 formed by said first face and a line perpendicular to said optical axis of said projector is given by

a following equation that

$$\tan\alpha_2 = \left[n_2 \sin\left\{ \sin^{-1}\left(\left(n_3/n_2 \right) \sin\theta_2 + n_1 \sin\theta_1 \right) + 2\alpha_1 \right\} + n_1 \sin\theta_1 \right] /$$

$$\left[n_1 \cos\theta_1 - n_2 \cos\left\{ \sin^{-1}\left(\left(n_3/n_2 \right) \sin\theta_2 + n_1 \sin\theta_1 \right) + 2\alpha_1 \right\} \right],$$

wherein a refractive index of a first medium brought into contact with said sawlike prismatic surface of said transparent screen is denoted by n_1, a refractive index of a second medium forming said transparent screen is denoted by n_2, a refractive index of a third medium brought into contact with a front surface of said transparent screen is denoted by n_3, an angle formed by said ray of light incident on said first face and said optical axis of said projector is denoted by θ_1, a refraction angle of a ray of light shot out from said front surface of said transparent screen is denoted by θ_2, and an angle formed by said first and second faces is denoted by α_1.

3. A picture display of a rear surface projection type according to claim 2, wherein:

a transmission efficiency η of said ray of light incident on said sawlike prismatic surface is given by a following equation that

$$\eta = \sin\alpha_2 \cos\alpha_2 \left\{ \tan\left(90^\circ - \alpha_2 \right) + \tan\theta_1 \right\} \left\{ \left(1/\tan\alpha_1 \right) - \tan\theta_{1b} \right\},$$

wherein θ_{1b} is a refraction angle of said ray of light incident on said first face looking downward of said sawlike prismatic surface.

4. A picture display of a rear surface projection type according to claim 1, wherein:

a light absorption layer for absorbing an external light transmitted into said transparent screen through said front surface thereof is formed on an external surface of said second face looking upward.